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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,431	01/28/2004	David P. Vronay	MS306697.1/MSFTP543US	3594
27195 7590 07/09/2008 AMIN, TUROCY & CALVIN, LLP 24TH FLOOR, NATIONAL CITY CENTER 1900 EAST NINTH STREET CLEVELAND, OH 44114				
EXAMINER NGUYEN, PHILLIP H				
ART UNIT 2191		PAPER NUMBER		
NOTIFICATION DATE 07/09/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/766,431

Applicant(s)

VRONAY ET AL.

Examiner

Phillip H. Nguyen

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-9,11-27,29-31,35,36 and 39-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-9,11-27,29-31,35,36 and 39-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the amendment filed 4/11/2008.
2. Per applicant's request, claims 1, 3, 8, 27, 29, and 31 have been amended; claims 4, 10, 28, 32-34, and 37-38 have been cancelled; claims 39-43 are newly added.
3. Claims 1-3, 5-9, 11-27, 29-31, 35, 36, and 39-43 remain pending and have been considered below.

Response to Amendment

4. The rejection to claims 1-9, 11-27, 29-36, and 38 under 35 U.S.C. 101 has been withdrawn in view of applicant's amendment to clarify the deficiencies.

Response to Arguments

5. Applicant's arguments with respect to claims 1-3, 5-9, 11-27, 29-31, 35, 36, and 39-43 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 5, 7, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Sherrod (USPN 4,642,756).

As per claims 1 and 27:

Sherrod teaches:

a constraint component that receives loose temporal constraints associated with a plurality of events (see at least col. 4:31-35 "***Each task (i.e. events) stored in RAM 1' and ROM 2' (FIG. 2) have two priority values associated with them (1) an internal priority provided from within the task scheduler, and (2) an external priority assigned by the computer operator or the task itself***"; see also at least col. 8:16-17 "***Each task (i.e. event) has associated with it within task scheduler 6' two timers, RUNTIME 10' and INTTIME 11'***");

a system information component that receives execution system information (see at least col. 4:31-35 "***Each task (i.e. events) stored in RAM 1' and ROM 2' (FIG. 2) have two priority values associated with them (1) an internal priority provided from within the task scheduler, and (2) an external priority assigned by the computer operator or the task itself***"; and

an order component that determines an event order in accordance with the temporal constraints (see at least col. 5:60-67 "***Examine the state of task at the top of the ordered list of tasks. If the state of that task is S\$WAIT, do not execute any task but instead go back to step 1 and continue examining the state***

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*of the task at the top of the list until it becomes other than S\$WAIT") and selects an optimal event order based at least in part on execution system information, wherein the event order specifies the execution order of events (see at least col. 5:65-67 "**If the state of the task at the top of the list is other than S\$WAIT, execute that task** until it is no longer the task at the top of the list or its state changes to S\$WAIT").*

As per claim 2:

Sherrod further teaches:

wherein the constraint is an event start and/or a stop time (see at least col. 8:16-36 "...Elapsed time").

As per claim 3:

Sherrod further teaches:

wherein the constraint is event duration and/or a filter (see at least col. 8:16-36 "...Elapsed time").

As per claim 5:

Sherrod further teaches:

a system information component that provides information about an execution system to the order component to facilitate selection of an optimal event order (see at least TABLES 1-2).

As per claim 7:

Sherrod further teaches:

the information about an execution system includes data throughput rate
(see at least col. 6:10-18 "...external events such as the completion of an
input/output operation, Or an interrupt from a peripheral device...action taken by
the task such as waiting for an input/output operation to be complete").

8. Claims 8, 9, 12-26, 29-31, 35, 36, 39-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Jerome et al. (USPN 6,323,882).

As per claim 8:

Jerome teaches:

a display component that provides a plurality of object workspaces, the workspaces are user interface including a past, present and future space, the present space is an editable area (see at least col. 5:45-67 – col. 6:1-37 "GUI interface 205; see also FIGS. 5-10 – applicant is suggested to clarify/describe the past, the present and the future spaces to further describe the user interface. Examiner does not know what are the differences between them other than they are parts of the user interface); and

a design component that temporally associates and/or disassociate objects in the editable area wherein non-associated objects order of execution is

determined via utility-based analysis (see at least col. 5:45-67 " GUI interface 205...provides a graphical display of the current sequence to the user...The user creates a sequence by using a keyboard, a mouse, or other pointing device...To add the task to the current sequence, the user drags the task into the proper location in the sequence display window...").

As per claim 9:

Jerome further teaches:

object workspaces that facilitate a graphical-based approach to specify relationships amongst objects (see at least FIGS. 4A-4D).

As per claim 12:

Jerome further teaches:

a specification component that receives hard start and/or end times for events associated with objects (see at least col. 7:57-63 "the user enters a begin time 610 and a limit time 630. The begin time 610 indicates the time of day that the sequence is to be run. A begin date 620 to be used in connection with the begin time 610 is also established. A limit time 630 is the maximum amount of time that the sequence can be run before some intervention will be taken by the scheduler").

As per claim 13:

Jerome further teaches:

the design component temporally associates objects as a function of respective location in the editable area (see at least col. 5:45-67 " *GUI interface 205...provides a graphical display of the current sequence to the user...The user creates a sequence by using a keyboard, a mouse, or other pointing device...To add the task to the current sequence, the user drags the task into the proper location in the sequence display window...*").

As per claim 14:

Jerome further teaches:

a duration component that receives information regarding event duration (see at least col. 7:57-63 "*the user enters a begin time 610 and a limit time 630. The begin time 610 indicates the time of day that the sequence is to be run. A begin date 620 to be used in connection with the begin time 610 is also established. A limit time 630 is the maximum amount of time that the sequence can be run before some intervention will be taken by the scheduler*").

As per claim 15:

Jerome further teaches:

the design component receives and executes information related to nested events associated with respective objects (see at least col. 7:57-63 "*the user enters a begin time 610 and a limit time 630. The begin time 610 indicates*

the time of day that the sequence is to be run. A begin date 620 to be used in connection with the begin time 610 is also established. A limit time 630 is the maximum amount of time that the sequence can be run before some intervention will be taken by the scheduler").

As per claim 16:

Jerome further teaches:

a policy component that applies pre-defined rules to execution of the objects (see at least col. 8:3-67 "The frequency of execution of a sequence may be selected in a run occurs box 640. In one embodiment, the run occurs box 640 includes a more than daily button 641, a daily button 642, a weekly button 643, and a monthly button 644..."; see also at least FIGS. 6A-6D).

As per claim 17:

Jerome further teaches:

a policy component that applies pre-defined rules to editing of the objects (see at least col. 8:3-67 "The frequency of execution of a sequence may be selected in a run occurs box 640. In one embodiment, the run occurs box 640 includes a more than daily button 641, a daily button 642, a weekly button 643, and a monthly button 644..."; see also at least FIGS. 6A-6D).

As per claim 18:

Jerome further teaches:

the design component receives and executes information regarding hierarchical relationship of respective objects (see at least FIGS. 4A-4D).

As per claim 19:

Jerome further teaches:

the design component receives and executes information regarding dependency relationship of respective objects (see at least FIGS. 4A-4D).

As per claim 20:

Jerome further teaches:

a query component that searches for events that satisfy a query, and displays objects associated with the events in temporal order (see at least col. 5:63-66 "*The task are selected from one of the several task palettes 320*").

As per claim 21:

Jerome further teaches:

the query component provides context information for respective objects (see at least col. 5:66-67 – col. 6:1-2 "*The task palette 320 is subdivided into several categories. For example, in a general task window 325, basic tasks such as an input task, an output task and a custom task are displayed*").

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As per claim 22:

Jerome further teaches:

objects placed in the past area are executed prior to objects in the present area. (see at least FIGS. 4A-4D - *Tasks are executed in order*).

As per claim 23:

Jerome further teaches:

objects placed in the future area are executed after objects in the present area (see at least FIGS. 4A-4D - *Tasks are executed in order*).

As per claim 24:

Jerome further teaches:

the design component associates objects in a non-linear conditional manner (see at least FIGS. 4A-4D).

As per claim 25:

Jerome further teaches:

the design component associates objects via iterative loops (see at least FIGS. 4A-4D).

As per claim 26:

Jerome further teaches:

the design component associates objects based on a specified version (see at least FIGS. 4A-4D – task is associated with a specified version (task A, B, or C).

As per claim 29:

Jerome further teaches:

receiving object data associated with events from a workspace including at least one of a past, present, and future area (see at least col. 5:63-66 "*The tasks are selected from one of the several task palettes 320. To add the task to the current sequence, the user drags the task into the proper location in the sequence display window 340*");

associating objects temporally based at least in part upon relative object locations (see at least col. 5:45-67 "*GUI interface 205...provides a graphical display of the current sequence to the user...The user creates a sequence by using a keyboard, a mouse, or other pointing device...To add the task to the current sequence, the user drags the task into the proper location in the sequence display window...*"); and

determining the execution order of events based on object associations and information regarding an execution system that executes the events (see at least col. 7:50-55 "*When a sequence is scheduled, the time at which it will be automatically executed is determined by the information supplied on the schedule table 605*").

As per claim 30:

Jerome further teaches:

associating objects based on one or more operational objects (see at least col. 5:66-67 – col. 6:1-2 *"The task palette 320 is subdivided into several categories. For example, in a general task window 325, basic tasks such as an input task, an output task and a custom task are displayed"*).

As per claim 31:

Jerome further teaches:

wherein the operational objects correspond to at least a loop, a trigger, a conditional and hard start and/or stop times (see at least FIGS. 4A-4D).

As per claim 35:

Jerome further teaches:

wherein objects are associated in a non-linear conditional manner (see at least FIGS. 4A-4D).

As per claim 36:

Jerome further teaches:

wherein the objects are associated via iterative loops (see at least FIGS. 4A-4D).

As per claim 39:

Jerome further teaches:

wherein information about event start and stop times and event duration is communicated with a particular object (see at least col. 6:52-67 "*The sequence PDF window 300 also assists the user in creating sequences by providing feedback to the user on the status of the sequence. In one embodiment, each task is visually coded to indicate to the user the state of the task. In one example, the coding is a color code. For example, if a task is not fully specified or has no entry point, the color of the task border may be red. Thus, in the examples in FIGS. 4A-4D, Task C in FIG. 4B would have no entry point and therefore would be bordered in red...*").

As per claim 40:

Jerome further teaches:

wherein the objects are bars and fuzzy edges on the bars indicate an unspecified time (see at least col. 6:52-67 "*The sequence PDF window 300 also assists the user in creating sequences by providing feedback to the user on the status of the sequence. In one embodiment, each task is visually coded to indicate to the user the state of the task. In one example, the coding is a color code. For example, if a task is not fully specified or has no entry point, the color*

of the task border may be red. Thus, in the examples in FIGS. 4A-4D, Task C in FIG. 4B would have no entry point and therefore would be bordered in red...").

As per claim 41:

Jerome further teaches:

wherein the fuzzy edges on at beginning of the bar indicate an unspecified start time and the fuzzy logic on at end of the bar indicates an unspecified end time and or duration (see at least col. 6:52-67 "*The sequence PDF window 300 also assists the user in creating sequences by providing feedback to the user on the status of the sequence. In one embodiment, each task is visually coded to indicate to the user the state of the task. In one example, the coding is a color code. For example, if a task is not fully specified or has no entry point, the color of the task border may be red. Thus, in the examples in FIGS. 4A-4D, Task C in FIG. 4B would have no entry point and therefore would be bordered in red...*").

As per claim 42:

Jerome further teaches:

wherein hard bold edges on the bar specifies specific start and/or stop time (see at least col. 6:52-67 "*The sequence PDF window 300 also assists the user in creating sequences by providing feedback to the user on the status of the sequence. In one embodiment, each task is visually coded to indicate to the user the state of the task. In one example, the coding is a color code. For example, if*

a task is not fully specified or has no entry point, the color of the task border may be red. Thus, in the examples in FIGS. 4A-4D, Task C in FIG. 4B would have no entry point and therefore would be bordered in red...").

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 6 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherrod (USPN 4,642,756), in view of Howie et al. (USPN 5,093,794).

As per claims 6 and 43:

Sherrod does not explicitly teach:

the information about an executing system includes available memory.

However, Howie teaches:

the information about an executing system includes available memory
(see at least col. 5-12 "*Identifying critical resources (i.e. memory, processor, etc.) and capacity bottlenecks. Assigning work orders to the proper work order managers. Assigning resources to the proper resource brokers for finite scheduling*").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Sherrod's approach to include resources information about the system. One would have been motivated to modify in order to ensure that the system is capable of executing the tasks.

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jerome et al. (USPN 6,323,882), in view of Green et al. (USPN 4,646,231).

As per claim 11:

Jerome does not explicitly teach:

non-associated objects are executed randomly.

However, Green teaches:

non-associated objects are executed randomly (see at least col. 1:60-67

"In the present invention, a method of synchronizing the sequence by which a variety of unrelated activities are Executed in a digital processor when those activities are randomly called by multiple callers includes the steps of providing a single processor queue for holding respective pointers to each different kind of activity that the processor performs...").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Jerome's approach to allow randomly executing the tasks. One would have been motivated to modify in order to avoid the

complication as the number of processors, number of tasks, and number of activities within each task increases.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip H. Nguyen whose telephone number is (571) 270-1070. The examiner can normally be reached on Monday - Thursday 10:00 AM - 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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7/1/2008

/Wei Zhen/

Supervisory Patent Examiner, Art Unit 2191